

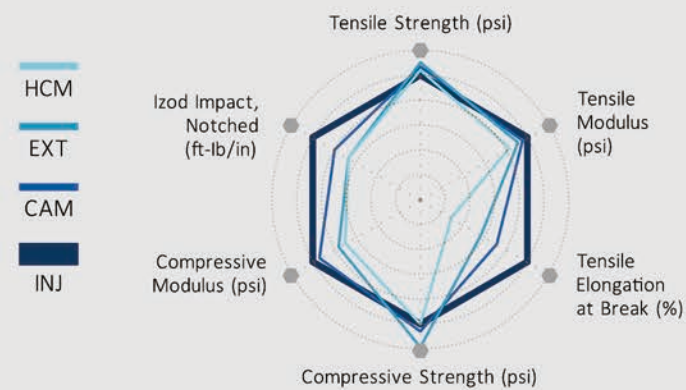


INJECTION MOLDING

Injection molding is an important manufacturing process for thermoplastics to create precision parts and components. Typically designer would use stock shapes from other processes for early prototyping and then use injection molding to validating mass production feasibility. However, tooling cost and turn around time would be usually prohibitive to use this process for high performance or specialty polymers due to volume limitation. Furthermore, prototype tooling often produces inferior parts with knead or flow lines that may not be a good predictor of actual production part performance.

Polymics® has combined material and process technologies to bring unmatched value to market. Our comprehensive injection molded product portfolio provides customers with cost effective choices to obtain critical application properties in shape form.

TYPICAL PROPERTY VARIATIONS BY PROCESS



ADVANTAGES OF POLYMICS INJ

WIDE RANGE OF STANDARD TOOLING FOR VARIOUS APPLICATIONS

PRODUCTION QUALITY SHAPES AT PROTOTYPING QUANTITY

OPTIMIZED FROM PROTOTYPE TO PRODUCTION

FLEXIBLE GATE DESIGN TO MATCH APPLICATION REQUIREMENTS

COMPREHENSIVE PORTFOLIO OF HIGH PERFORMANCE POLYMERS, ALLOYS AND THEIR SPECIALTY COMPOUNDS.

DESIGN EXPERIENCE IN WIDE RANGE OF APPLICATIONS FROM SEAL & RINGS IN FLUID HANDLING COMPONENTS TO COMPONENTS IN SEMI-CONDUCTOR INDUSTRY.

POLYMICS' STANDARD THERMOPLASTIC SIZES / SHAPES

POLYKETONES	Pyramid™ PEEK	Unfilled, Glass-Filled, Carbon-Filled, Wear Grade, and Specialty Formulations PEEK
	PEK	High glass transition temperature and Melting Temperature semi crystalline Material, Unfilled, Glass-Filled, and Carbon-Filled PEK
	PEKEKK	High Performance Thermoplastic semi crystalline Material, Unfilled, Glass-Filled, and Carbon-Filled PEKEEK
Arylmax® IA	IA-850	High Temperature Polyetherketoneketone Blend Machinability PI. Unfilled, Glass-Filled, Carbon-Fiber, and Self-Lubricating Blends
	IA-870	High Temperature Polyetherketoneketone Blend Machinability PBI. Unfilled, Glass-Filled, Carbon-Fiber, and Self-Lubricating Blends
Trlon®	PAI	PAI Combines The Exceptional Performance Of Thermoset Polyimides With The Melt-processing Advantage Of Thermoplastics. Unfilled, Glass-Filled, Carbon-Filled, and Wear Grade PAI
Other	Pyramid™ PPS	Unfilled, Glass-Filled, and Wear Grade PPS
	PEI	Unfilled, ESD, and Carbon-Filled PEI
	Pyramid™ PPSU	Unfilled, Glass-Filled, and Carbon-Filled PPSU

We have a wide range of material capability; contact us for other material or special requests.

INJECTION MOLDING



POLYMICS' STANDARD THERMOPLASTIC SIZES / SHAPES

TUBES	Outer Diameters (OD) from 1.0" to 2.0" in Length of 6.0" with Wall Thicknesses up to 0.5" Outer Diameters (OD) from 2.0" to 7.0" in Length of 6.0" with Wall Thicknesses up to 0.625" Outer Diameters (OD) from 7.25" to 10.0" in Length of 4.0" with Wall Thicknesses up to 0.625" Outer Diameters (OD) from 10.0" to 15.25" in Length of 2.0" with Wall Thicknesses up to 1.0"	TUBES
RODS	Diameters from 0.25" to 0.75" in Lengths of 10"	RODS
PLATE	4"x4", Thickness from 0.125" to 0.5" 12"x6" (300x150mm), Thickness from 0.125" to 0.375"	PLATES
DISCS	Outer Diameters (OD) from 1.75" to 13.0" with a Wall Thickness of 0.24"	DISCS
ROLLER	Outer Diameters 1 (OD1) from 2.05" to 2.76" Outer Diameters 2 (OD2) from 1.10" to 1.42" Inner Diameters (ID) from 0.63" to 1.06" Height 1 from 0.24" to 0.55" Height 2 from 0.16" to 0.55"	ROLLERS
		NEAR NET SHAPES

Size and shape capabilities of individual materials may vary. Contact Polymics, Ltd. for details. Custom materials/sizes also available.

TYPICAL APPLICATION OF POLYMICS INJECTION MOLDED PRODUCT LINE

PRODUCT APPLICATION	MARKET		
SEAL & BACK UP RINGS	Oil & Gas		
COMPRESSOR VALVE	Industrial		
BUSHING & WEAR PLATE	Industrial		
ROLLER & FIXTURE	LCD		
TEST SOCKETS & HANDLING COMPONENTS	Semiconductor		
SPINAL CAGE & SCREWS	Medical		

CCM and DF products available upon request.

SUMMARY

Polymics® injection molded product line provides a wide range of stock shapes and unique near net shape that is used in as test socket feed stock in BiTS markets, as seal & ring feed stock in oil and gas markets, as specialty compressor plates and valve components. It also provides a cost effective solution with superior properties when comparing to traditional machined components, in prototyping or in production. We continue to cover more tooling sizes to better service customers by reducing material cost, machining time and part stress.

Our continuing Green initiatives include a scrap buyback program to eliminate landfilling and bring additional value to our customer/partners.